DEFENSE TECHNICAL INFORMATION CENTER
PRESERVING KNOWLEDGE • CONNECTING PEOPLE • INSPIRING INNOVATION
(https://discover.dtic.mil)

Keywords Search

View the full text of this report (https://apps.dtic.mil/sti/pdfs/AD0668866.pdf)

Accession Number: AD0668866

Title: CERAMIC SYSTEMS FOR MISSILE STRUCTURAL APPLICATIONS.

Descriptive Note: Summary rept. no. 1, 17 Dec 66-16 Dec 67,

Corporate Author: GEORGIA INST OF TECH ATLANTA ENGINEERING EXPERIMENT STATION

Personal Author(s):

Poulos,N. E. (https://discover.dtic.mil/results/?q=%22Poulos%2CN.+E.%22) ; Murphy,C. A. (https://discover.dtic.mil/results/?q=%22Murphy%2CC.+A.%22) ; Boland,P. (https://discover.dtic.mil/results/?q=%22Boland%2CP.%22)

Report Date: 1968-04-01

Pagination or Media Count: 37.0

Abstract:

The research program conducted during the contract year is described. Report is abbreviated to provide broad interpretation of program. Specific details of completed investigations offering improvements in the state-of-the-art are to be presented in Special Technical Reports. Three such reports prepared concurrently with this report are available from the Defense Documentation Center, and the respective titles are Composite Thermal Protection Systems, Characterization of Commercial Fused Silica Slips, and Guidelines for the Establishment of Optimal Heat-Treatment Process Parameters for Slip-Cast Fused Silica Components. Areas of study included embedded ablator concept for thermal protection systems, characterization of commercially available fused silica slips, time-temperature-thickness relationships for sintering of SCFS hardware, determination of the influence of grinding on the particle distribution, time-temperature-cristobalite behavior and physical properties of pure fused silica, and fabrication of SCFS radome structures and attachments for thermal evaluation in the General DynamicsPomona Ordnance Aerophysics Laboratory Typhon Combustor. Author

Descriptors:

(*GUIDED MISSILES (https://discover.dtic.mil/results/?q=%22%28*GUIDED+MISSILES%22) ; *RADOMES) (https://discover.dtic.mil/results/?q=%22*RADOMES%29%22) ; (*AIRFRAMES (https://discover.dtic.mil/results/?q=%22%28*AIRFRAMES%22) ; MANUFACTURING) (https://discover.dtic.mil/results/?q=%22MANUFACTURING%29%22) ; (*HEAT RESISTANT MATERIALS (https://discover.dtic.mil/results/?q=%22%28*HEAT+RESISTANT+MATERIALS%22) ; *CERAMIC MATERIALS) (https://discover.dtic.mil/results/?q=%22*CERAMIC+MATERIALS%29%22) ; HEAT SHIELDS (https://discover.dtic.mil/results/?q=%22HEAT+SHIELDS%22) ; GUIDED MISSILE COMPONENTS (https://discover.dtic.mil/results/?q=%22GUIDED+MISSILE+COMPONENTS%22) ; SLIP CASTING (https://discover.dtic.mil/results/?q=%22SLIP+CASTING%22) ; HONEYCOMB CORES (https://discover.dtic.mil/results/?q=%22HONEYCOMB+CORES%22) ; SANDWICH CONSTRUCTION (https://discover.dtic.mil/results/?q=%22SANDWICH+CONSTRUCTION%22) ; SILICON ALLOYS (https://discover.dtic.mil/results/?q=%22SILICON+ALLOYS%22) ; PHYSICAL PROPERTIES (https://discover.dtic.mil/results/?q=%22PHYSICAL+PROPERTIES%22) ; ABLATION (https://discover.dtic.mil/results/?q=%22ABLATION%22) ; THERMAL INSULATION (https://discover.dtic.mil/results/?q=%22THERMAL+INSULATION%22) ; PARTICLE SIZE (https://discover.dtic.mil/results/?q=%22PARTICLE+SIZE%22) ; AERODYNAMIC CHARACTERISTICS (https://discover.dtic.mil/results/?q=%22AERODYNAMIC+CHARACTERISTICS%22) ; ENVIRONMENTAL TESTS (https://discover.dtic.mil/results/?q=%22ENVIRONMENTAL+TESTS%22) ; COMPOSITE MATERIALS (https://discover.dtic.mil/results/?q=%22COMPOSITE+MATERIALS%22) ; MANUFACTURING (https://discover.dtic.mil/results/?q=%22MANUFACTURING%22)

Subject Categories:

Ceramics, Refractories and Glass; Laminates and Composite Materials; Fabrication Metallurgy; Structural Engineering and Building Technology; Guided Missiles

Distribution Statement: APPROVED FOR PUBLIC RELEASE

View the full text of this report (https://apps.dtic.mil/sti/pdfs/AD0668866.pdf)

DEFENSE TECHNICAL INFORMATION CENTER
8725 John J. Kingman Road, Fort Belvoir, VA 22060-6218
1-800-CAL-DTIC (1-800-225-3842)